

EPEE RECOMMENDATIONS FOR THE UPCOMING REVISION OF THE REGULATION ON CERTAIN FLUORINATED GASES (EU 842/2006)

The European Partnership for Energy and the Environment is committed to contribute to achieving the EU target of a low-carbon economy by 2050.

The refrigeration, air conditioning and heat pump industry has reduced CO₂eq emissions from refrigerants by 13% since 1990 and is set to continue on this path. To achieve further reductions up to 60%, EPEE supports a two staged approach, based on latest [data](#) published by the French research institutes ERIE and ARMINES:

1. Full implementation and further improvement of the F-Gas Regulation.
2. A balanced and realistic cap- and phase down scheme for the consumption of HFCs.

1. FULL IMPLEMENTATION & FURTHER IMPROVEMENT OF THE F-GAS REGULATION

- **At least 15% CO₂eq refrigerant emission reduction potential**
- **At least 9% reduction of HFC refrigerant demand for new and existing equipment**

Full implementation of the F-Gas Regulation combined with the ODS regulation and current market trends towards lower GWP refrigerants can reduce CO₂eq refrigerant emissions by at least 15% from 147 million tonnes in 2010 to 124 tonnes in 2030, for a refrigerant bank that will almost double in the same period of time. The CO₂eq content of HFC refrigerant demand in the EU for new equipment and servicing existing equipment can potentially be reduced by at least 9% from 136 million tonnes in 2010 to 124 million tonnes in 2030.

Key factors which help to achieve this reduction are: **introduction of refrigerants with a lower Global Warming Potential (GWP) where appropriate; lower refrigerant charges; reduction of leakage rates and improved recovery efficiency at end of life.** Additional emission reductions can be achievable by applying the following recommendations:

1.1 A broadened scope:

All transport refrigeration and air-conditioning should be included.

1.2 Measures targeted at operators:

Continuation of information campaigns to make sure that operators understand their obligations.

1.3 Measures targeted at installers, distributors or wholesalers of refrigerants:

Extend liability to companies/personnel who interfere with or break into the refrigerant circuit: If they are not duly certified they shall be liable to penalties, as is already the case in some Member States. Distributors or wholesalers should only be allowed to sell refrigerants to certified companies entitled to break into a circuit.

1.4 Measures targeted at companies who assign work on a refrigerant circuit to a contractor:

Any company or person (not only operators) who assigns work to a third party on a refrigerant circuit shall make sure that this 3rd party is properly certified.

1.5 Measures targeted at Member States

Priority should be given to systematic controls by assigned market surveillance authorities in the Member States. The European Commission should continue with its infringement procedures for Member States which are not yet compliant with the F-Gas rules. The European Commission

could do more to favour the exchange of information and best practices on implementation and market surveillance by setting up a system similar to the Administrative Co-operation Groups.

1.6 Sharing best practices - promotion of EU standards:

Standards play a useful role in sharing best practices in the HVAC industry to improve tightness of refrigerant circuits or qualification of people handling such circuits. For example: Reduction of emission rates (EN 378 (systems) and EN 16084 (components and joints); Qualification of people handling refrigerant circuits (standard EN 13313)).

1.7 Ensure higher efficiency of end of life recovery:

Recovery, reclaim and recycling of refrigerants need to be improved by incentivizing installers and operators (deposit and fee schemes) and reducing administrative burden related to cross-border transportation of recovered refrigerants. In this respect, the current revision of the WEEE directive, including a possible open scope, will further strengthen the end of life treatment requirements.

1.8 Introduce a central electronic register for certified companies and staff

This will facilitate the proper implementation of the F-gas Regulation.

2. A BALANCED AND REALISTIC CAP & PHASE-DOWN SCHEME FOR THE CONSUMPTION OF HFCS

- **Up to 60% CO₂eq emission reduction potential**
- **Up to 60% reduction of HFC refrigerant demand for new and existing equipment**

If further action is deemed necessary, a gradual and balanced cap- and phase down scheme – in line with international developments- is best placed to achieve further emission reductions without compromising overall system efficiency and placing excessive costs on the industry and end-consumers. A realistic scheme also needs to take into account the capacity of industry to invest in new lower GWP technologies and products, industrial planning timescales, and ensure that the international competitive position of European companies will not be disrupted.

By reducing the consumption of HFC refrigerants based on their CO₂eq content, a cap and phase-down scheme promotes an accelerated introduction of lower GWP refrigerants and technological innovation, while allowing for industry to make application based refrigerant and system design choices that achieve environmental compliance without compromising on safety and energy efficiency.

Data¹ show a maximum achievable demand reduction of up to 60% resulting in refrigerant emission reductions up to 60% from 147 million tonnes CO₂eq to 57 tonnes. This maximum scenario can be used as a basis for discussion to establish phase-down schedules taking into account three key parameters:

- The scenario includes “best non-available technologies” for which currently no feasibility studies have been carried out by product (OEM) manufacturers. Energy efficiency will need to be assessed.
- Safety implications will need to be re-assessed as several member states impose limitations for flammable refrigerants (some low GWP HFCs and R-32 are mildly flammable and hydrocarbons are even extremely flammable).
- The growing use of heat pumps – a technology which will considerably reduce global greenhouse gas emissions – will entail an increase in HFC consumption.

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¹ The ERIE / ARMINES study. Please find the Executive Summary [here](#). The full study is available on request. Please send an e-mail to secretariat@epeeglobal.org.

About EPEE

The European Partnership for Energy and the Environment (EPEE) represents the refrigeration, air-conditioning and heat pump industry in Europe. Founded in the year 2000, EPEE's membership is composed of 40 member companies and national associations across Europe realising a turnover of over 30 billion Euros and employing more than 200,000 people in Europe. As an expert association, EPEE is supporting safe, environmentally and economically viable technologies with the objective of promoting a better understanding of the sector in the EU and contributing to the development of effective European policies. *For more information please visit: www.epeeglobal.org.*